BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
	)	ET Docket No. 92-191
Amendment of Section 2.106 of the	)	RM-7511
Commission's Rules to Upgrade to	)	
Primary Status the Secondary	)	
Mobile-Satellite Service Allocation	)	
at 19.7 GHz and 29.5-30.0 GHz	)	

To: The Commission

COMMENTS OF TRW INC.

TRW Inc. ("TRW"), by its attorneys, hereby comments on the Commission's Notice of Proposed Rule Making in the above-captioned docket, 7 FCC Rcd 5626 (1992) ("Notice"). The Commission adopted the Notice in response to a Petition for Rule Making filed by Norris Satellite Communications, Inc. ("Norris"). Although Norris proposed that the Commission implement a General Satellite Service ("GSS") in the 19.7-20.2 GHz and 29.5-30.0 GHz frequency bands that would effectively elevate mobile-satellite service ("MSS") and broadcast-satellite service ("BSS") to co-primary status with fixed-satellite service ("FSS"), the Commission proposes in the Notice only to make MSS and FSS co-

primary in the 19.7-20.2 GHz and 29.5-30.0 GHz bands. Specific BSS and GSS allocations would not be made. Notice, 7 FCC Rcd at 5628.

TRW has applied to the Commission for authority to construct, launch and operate a low-Earth orbit ("LEO") MSS system in the 1610-1626.5 MHz and 2483.5-2500 MHz frequency bands. These bands have been allocated to the radio determination satellite service ("RDSS"). However, in accordance with modifications to the International Telecommunication Union ("ITU") Radio Regulations adopted at this year's World Administrative Radio Conference ("WARC-92"), these bands have been proposed for reallocation domestically for LEO MSS systems. TRW propose to use frequencies in the Ka-band between 19.7-20.2 GHz and 29.5-30.0 GHz for space-to-earth and earth-to-space feeder links for its Odyssey LEO MSS system. See TRW Odyssey Application, File Nos. 20-DSS-P-91(12) and CSS-91-015, at 40 and Table IV-A. To the extent that Norris anticipates using these frequencies for its hybrid FSS/MSS system, TRW's intended use could be affected.

TRW does not oppose the adoption of the proposals included in the Commission's Notice. It does believe, however, that the Commission should clarify that the Ka-band frequencies proposed for combined FSS and MSS use also remain available for users such as TRW, which propose to use the FSS portion of the allocation in the manner prescribed by Part 25 of the Commission's rules. Specifically, Section 25.202(a)(2) of the Commission's rules

provides that "Fixed-satellite service frequencies may be used for links between radiodetermination satellites and control centers. . . ." See 47 C.F.R. § 25.202(a)(2). Because TRW proposes to utilize the RDSS frequencies to provide its LEO RDSS and MSS service, it appropriately specified the Ka-band FSS frequencies for feeder links in its Odyssey application.

Last summer, TRW became concerned that the proposal for a new General Satellite Service, advocated by the Commission for inclusion on the WARC-92 agenda, did not properly acknowledge existing authorized uses of the FSS frequencies for ancillary feeder links in the RDSS service. Counsel for TRW wrote to the Commission's Chief Engineer requesting a clarification of this point in advance of WARC-92. In particular, TRW requested that the Commission make clear that the Ka-band frequencies specified for the Odyssey system feeder links would continue to be available to meet the domestic FSS or MSS needs provided for under existing Commission rules. See Letter from Norman P. Leventhal and Raul R. Rodriguez to Dr. Thomas P. Stanley, dated July 15, 1992, attached hereto as Attachment 1. Dr. Stanley responded to this request by confirming that TRW was "correct that the GSS definition contained in the Commission's recommended proposal for 1992 WARC did not intend to remove the frequency bands, 19.7-20.2 and 29.5-30.0 GHz, from their current permissible uses." See Letter from Dr. Thomas P. Stanley to Raul

R. Rodriguez, dated September 19, 1992, attached hereto as Attachment 2.

Consistent with this understanding, TRW requests that the Commission make explicit in any Report and Order and/or rules adopted in this proceeding that the feeder links associated with LEO MSS systems operating in the 1610-1626.5 MHz and 2483.5-2500 MHz bands may continue to be located in the Ka-band FSS frequencies that would become co-primary with the MSS under the proposal advanced in the Notice. TRW's request is fully in accord with the international agreements adopted at WARC-92. In particular, it was clearly understood among delegates to WARC-92 that Footnote 873E did not preclude the use of FSS frequencies for existing permitted uses, including RDSS feeder links.[1/]

Finally, TRW recognizes that ITU Radio Regulation 2613 limits transmissions by non-geostationary (e.g., LEO) satellites in certain situations when unacceptable interference is caused to geostationary FSS satellites.[2/] This regulation, however, is inapplicable to the type of service proposed by Norris -- because Norris proposes a hybrid FSS and MSS service, and not an

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1/ See Final Acts of the World Administrative Radio Conference, Malaga-Torremolinos 1992 at 23 ("Final Acts, WARC-92"). TRW also notes that it is not clear whether ITU footnote 873E requires both MSS and FSS uses to occur in the Ka-band frequencies. The Odyssey system is a mobile-satellite system, but because its use of the Ka-band only for feeder links is consistent with the original fixed-use purposes for which the spectrum was allotted, there appears to be no reason that TRW would be penalized for not actually proposing to use these particular frequencies to provide mobile services as well.

2/ See Final Acts, WARC-92 at 51.

exclusively FSS system.[3/] In any event, because the Commission has expressly recognized that existing "fixed-satellite service allocations can be used for [LEO MSS] feeder links, . . ."[4/] the Commission should adopt a new U.S. Footnote that specifically exempts from the limits of RR 2613 the use of the Ka-band spectrum for feeder links by non-geostationary MSS systems.[5/] Indeed, any other determination would be inconsistent with the Commission's conclusion that "technology, rather than restrictive service definitions, should dictate access to the 20/30 GHz bands to encourage the development of this unused spectrum." Notice, 7 FCC Rcd at 5628.

3/ The ITU clearly views such hybrid MSS/FSS systems as distinct from FSS systems. In Recommendation COM 4/D, the delegates recognized that multiservice satellite networks may have an impact on FSS networks, and recommended the initiation of studies to develop sharing criteria for FSS and multiservice systems in, inter alia, the 19.7-20.2 GHz and 29.5-30 GHz bands. See Final Acts, WARC-92, at 128.

4/ Amendment of Section 2.106 of the Commission's Rules to Allocate the 1610-1626.5 MHz and the 2483.5-2500 MHz Bands for Use by the Mobile-Satellite Service, Including Neo-geostationary Satellites, Notice of Proposed Rule Making, FCC 92-358 (released September 4, 1992) slip op. at 11.

5/ This Footnote, USXXX, would read as follows: "RR 2613 shall not be applied to require non-geostationary MSS systems to cease or reduce feeder link operations in the 19.7-20.2 GHz and 29.5-30.0 GHz bands." TRW notes that Norris has previously urged the Commission to impose a coordination obligation on geostationary and non-geostationary systems using the Ka-band frequencies at issue here. See Norris Comments in File Nos. 9-DSS-P-91(87), et al., at 1-2.

Conclusion

Therefore, for the foregoing reasons, TRW respectfully requests that the Commission: (1) explicitly protect existing permitted uses of the Ka-band spectrum for feeder links in conjunction with LEO MSS systems operating in the 1610-1626.5 MHz and 2483.5-2500 MHz frequency bands, and (2) adopt a U.S. footnote making clear that non-geostationary systems making use of these bands are exempt from the operation of RR 2613.

Respectfully submitted,

TRW Inc.

By: _____

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November 2, 1992

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ATTACHMENT 1

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July 15, 1991

VIA HAND DELIVERY

Dr. Thomas P. Stanley
Chief Engineer
Office of Engineering and Technology
Federal Communications Commission
2025 M Street, N.W.
Washington, D.C. 20554

Dear Dr. Stanley:

We are writing to you on behalf of TRW, Inc. As you know, TRW recently filed an application with the Commission to construct the Odyssey satellite system to provide radiodetermination and voice and data mobile satellite services. Consequently, TRW is very interested in the Commission's Report to the Department of State on recommendations to be considered at the 1992 World Administrative Radio Conference. An Inquiry Relating to Preparation for the International Telecommunication Union World Administrative Radio Conference for Dealing With Frequency Allocations in Certain Parts of the Spectrum, FCC 91-188 (released June 20, 1991).

In the Report, the Commission made several specific recommendations affecting mobile satellite services. One particular recommendation, regarding the 19.7-20.2 and 29.5-30.0 GHz bands, may have an impact on TRW's pending request to use these frequencies for its Odyssey system. We therefore request a clarification of a very narrow aspect of the Commission's recommendations.

In the Report, the Commission proposes to allow both the mobile satellite service ("MSS") and the fixed satellite service ("FSS") to share equally the 19.7-20.2 and 29.5-30.0 GHz frequency bands, noting that it is in the best interest of the public to accommodate a wide variety of service needs in

these bands. Thus, the Commission proposes to modify the existing table of allocations for these frequency bands by replacing the existing primary FSS and secondary MSS allocations with a new umbrella service for FSS and MSS uses in these bands to be known as the General-Satellite Service ("GSS").

In the definitions section of Appendix A of the Report, the Commission proposes to define GSS as "[a] radiocommunication service using satellites for fixed and mobile applications." These proposals raise the general question of how the 19.7-20.2 and 29.5-30.0 GHz bands may be used domestically consistent with existing permissible FSS or MSS uses, and specifically, their use as feeder links in connection with the radiodetermination satellite service. See 47 C.F.R. §25.202. We do not believe the Commission intended, by its action, to remove these bands from their current permissible uses.

Accordingly, TRW urges the Commission to issue a clarification on this matter. This can be achieved very simply by making one minor change to the proposed definition of "General-Satellite Service," to read: "3.3A General Satellite Service: A radiocommunication service using satellites for fixed and/or mobile applications." In addition, TRW requests that the Commission make clear that the 19.7-20.2 and 29.5-30.0 GHz bands will continue to be available to meet the domestic FSS or MSS uses provided for in existing Commission rules. These minor clarifications are consistent with the Commission's stated goal of upgrading MSS in these bands to a shared primary status with FSS and maintaining the flexibility sought by the Commission's proposed GSS service classification.

Because the State Department soon will transmit these recommendations to the International Telecommunications Union for consideration by its members, we request a clarification of this matter as soon as possible.

Respectfully submitted,

Norman P. Leventhal
Raul R. Rodriguez

Counsel to TRW, Inc.

RRR:hs

ATTACHMENT 2

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

SEP 19 1991

IN REPLY REFER TO:

DRAFT

SEP 24 1991

Mr. Raul Rodriguez
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Dear Mr. Rodriguez:

This letter responds to your correspondence dated July 15, 1991, and our subsequent telephone conversation last week on behalf of TRW, concerning the definition of the General-Satellite Service (GSS).

You are correct that the GSS definition contained in the Commission's recommended proposal for 1992 WARC did not intend to remove the frequency bands, 19.7-20.2 and 29.5-30.0 GHz, from their current permissible uses. The clarification you suggested was forwarded to the Department of State during Ad Hoc 206 Committee deliberations. However, due to an oversight, the U.S. recommendations transmitted to the International Telecommunication Union failed to include the clarification. The U.S. WARC delegation is aware of the problem and should develop an acceptable modification to the GSS definition for use and explanation at the conference. This will ensure that your concerns are fully satisfied.

Sincerely,

Thomas P. Stanley

Thomas P. Stanley
Chief Engineer

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing "Comments of TRW Inc." was mailed, postage prepaid, this 2nd day of November, 1992, to:

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